**To:**   Gullett, Brian[Gullett.Brian@epa.gov]
Cc: Chirayath, Ved (ARC-SGE)[ved.chirayath@nasa.gov]; Kim, Nicole Y[kim.nicoley@epa.gov];
Aurell, Johanna[Aurell.Johanna@epa.gov]
From: Jonsson, Jonas (ARC-TI)[SGT, INC]
Sent: Thur 5/18/2017 6:15:28 AM
Subject: Re: Figures in paper

Brian,
The blue is due to the scale that is being used for coloring the track, see image attached. I had to
rescale the data values to fit the scale and had it go from 90 to 360, which includes blue. I've
refitted in inverted the scale for the data to go from 90 (green) for low values to 0 (red) for the
high values (passing through yellow and orange).
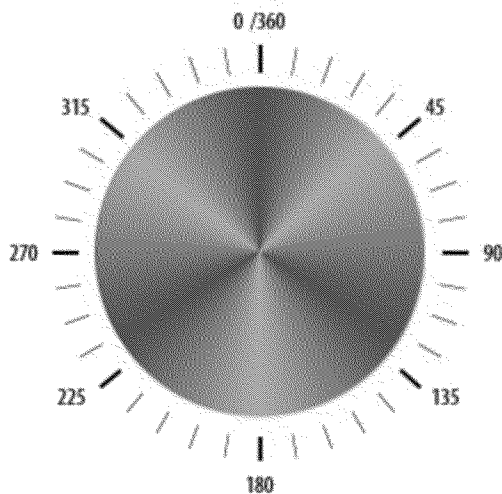
Brian, can you please send me the CO2 data from Radford, I only have the data from that day
(yes, three flights) in McAlester that I plotted. I will break out the data for the particular flight
we are focusing on and will plot for the views in the "old" images.

Jonas

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On May 17, 2017, at 6:43 AM, Gullett, Brian <Gullett.Brian@epa.gov> wrote:

Hej, Jonas. Tack sa mycket.

This looks pretty good and is similar to what Nicole (here at EPA) came up with.

You are actually showing three distinct flights, I believe. I think for the purpose of illustrating what the UAS can do, we can show a single flight with color-coded CO_2 concentrations. I'm sure we'll be able to substitute revised figures when we respond to the reviewers' comments.

What is the blue color? Perhaps if you can alter the color spectrum to green – yellow- orange- red that will be best?

If it's okay with Ved, can you redo the Radford and McAlester figures, including the tables with CO_2 concentration and the color-coded CO_2 levels? Include top and side views as you think it looks best.

Thanks!

Brian

Hi Brian,

I was going to send this image last night, but it got pretty late and I fell asleep before I managed to get it out to you.

I have played around with this for a while in-between work and other commitments, sorry for the delay, and think I have figured something out. I had to reformat and normalize the data and write my own KML, but attached is a screenshot from the data file that you sent me earlier. This displays the three flights we did on Feb 13th, with the CO_2 plotted along the track line. I can format the lines in the image somewhat, and this is what I could come up with now as a best visualization. Let me know what you think and I can try edit it as needed.

I've seen that you submitted the paper already, but maybe they are willing to receive the updated graphics if we would want to replace the ones we already have in the paper (don't know if they have picked out the reviewers yet)?

Trying to figure out this I overlooked to reply to the other questions you had:

The data I used for the plots in the paper are:

Radford: DJIFlightRecord_2016-10-06_[09-47-44].txt
McAlester: DJIFlightRecord_2017-02-13_[09-31-51].txt
(see email from Apr 10, 2017, at 12:47 PM)

And I used Google Earth.

Let me know what you think.
-Jonas

<image001.jpg>

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On May 10, 2017, at 7:15 AM, Gullett, Brian <Gullett.Brian@epa.gov> wrote:

Jonas,

Would it be possible for you to add the CO_2 concentrations to the red line in Figures 2 and 3?

Can you identify which flight paths these are (or the filename) for both figures? -- I don't recall….

My colleague here was able to use Google Earth to add the colors for CO_2 (see attached jpg) but I like your figure better…did you use Google Earth or ArcGIS?

I am hoping to get these last changes done and submit the paper tomorrow.

Thanks!

Brian

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<Kolibri Matrice paper May 10 post DM JB JR QA.docx><McAlester_Flight3_2.jpg>